# Innovation and Science

# **ACCOUNTABILITY STATEMENT**

The Business Plan for the three years commencing April 1, 2002 was prepared under my direction in accordance with the *Government Accountability Act* and the government's accounting policies. All of the government's policy decisions as of February 26, 2002 with material economic or fiscal implications of which I am aware have been considered in preparing the Business Plan.

The Ministry's priorities outlined in the Business Plan were developed in the context of the government's business and fiscal plans. I am committed to achieving the planned results laid out in this Business Plan.

[original signed]

Victor Doerksen, *Minister of Innovation and Science* February 27, 2002

# **INVESTING IN ALBERTA'S FUTURE TODAY**

Investing in science and technology today is critical to ensuring tomorrow's prosperity and quality of life. This fact is true in Alberta and around the globe. Alberta's abundant natural resources have helped place the province's economy among the world's strongest. The global, knowledge-intensive economy is evolving, and regions are increasing investments in technology, research and development. Alberta must do the same to maintain its competitive position.

As a government, Alberta must also be a leader in delivering services to the public using leading-edge technology. The provincial investment in Alberta SuperNet is providing the foundation for electronic delivery of government programs and services to Albertans in 422 communities throughout the province. With this world-class infrastructure in place, continuing cross-government leadership is vital to ensure that information and technology is managed efficiently and effectively.

# **OUR VISION**

Alberta prospers through the application of science and research and the innovative use of technology.

Partnership, cooperation and facilitation are cornerstones of the Ministry's approach to achieving its vision. The goals and strategies of this plan have been developed with valuable input from government, industry and Alberta universities.

# THE MINISTRY OF INNOVATION AND SCIENCE

The Ministry includes:

- Department of Innovation and Science
- Alberta Science and Research Authority
  - Alberta Research Council Inc.
  - iCORE Inc. (Informatics Circle of Research Excellence)
  - Alberta Agricultural Research Institute
  - Alberta Energy Research Institute
  - Alberta Forestry Research Institute

The Minister of Innovation and Science is also responsible for legislation pertaining to:

- Alberta Heritage Foundation for Medical Research
- Alberta Heritage Foundation for Science and Engineering Research (operating under the trade name "Alberta Ingenuity Fund")

Ministry activities are focused on two distinct core businesses. This is reflected in the organization of this business plan:

CORE BUSINESS 1: Research and Development	CORE BUSINESS 2: Corporate Information and Communications Technology
<ul> <li>Goal 1</li> <li>Goal 2</li> <li>Goal 3</li> <li>Goal 6</li> </ul>	<ul><li>◆ Goal 7</li><li>◆ Goal 8</li></ul>

# CORE BUSINESS 1: RESEARCH AND DEVELOPMENT

# MISSION: To enhance the contribution of science, research, development and commercialization to the sustainable prosperity and quality of life of all Albertans

Innovation is the process by which economic value is extracted from knowledge through generating, developing and implementing ideas to produce new or improved products, processes and services.

Alberta is well known for innovation. From success in the oil sands to breakthrough diabetes treatments, Albertans have been at the forefront of discoveries that are strengthening the economy and changing lives. In Alberta's future, innovation will continue to provide a competitive advantage in the global knowledge-intensive economy. Research is the key to developing new ideas and discoveries that can lead to innovation. The ultimate benefit from these ideas and discoveries is obtained when they are translated into new and improved products, processes or services in the marketplace.

Innovation and Science is focusing its future efforts and investments on:

- creating knowledge, by increasing research capability and capacity in areas of strategic importance
- ensuring that knowledge leads to tangible benefits for Alberta, by encouraging technology commercialization and the growth of knowledge-intensive industries in the province

The Ministry's approach to Research and Development is based on the following model. The Ministry supports research, building a critical mass of excellence that attracts skilled people and investment. At the same time, the Ministry creates an environment in which the research is effectively transformed into new products, processes and services. This leads to business growth, job creation, a sustainable economy and a better quality of life for Albertans.

Ministry efforts under this core business will, in turn, impact the achievement of the broader Government of Alberta (GOA) business plan goals, particularly goals related to:

- economic prosperity (GOA goal 7)
- building a skilled workforce (GOA goal 8)
- business innovation (GOA goal 9)
- development of value-added industries and exports (GOA goals 10 and 14)
- maintenance of effective and efficient infrastructure (GOA goal 11)

Our activities under this core business will also indirectly impact the achievement of government goals related to the:

- health of Albertans (GOA goal 1)
- sustainability of Alberta's renewable natural resources (GOA goal 16)
- quality of Alberta's environment (GOA goal 17)

#### GOAL 1: TO ENHANCE THE QUALITY AND CAPACITY OF ALBERTA'S RESEARCH SYSTEM IN AREAS OF STRATEGIC IMPORTANCE, WITH AN EMPHASIS ON BUILDING CAPABILITY TO SUPPORT RESEARCH IN ENERGY, INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT) AND LIFE SCIENCES

OUTCOMES	STRATEGIES		
Internationally recognized research capabilities in areas of strategic importance for long-term growth	<ol> <li>Investing in People:</li> <li>Provide support for the recruitment and retention of key scientific personnel at Alberta universities</li> <li>Encourage youth to enter careers in science and technology</li> </ol>		
810 w th	Investing in Infrastructure:		
	<b>3.</b> Provide strategically targeted support for Alberta university research infrastructure		
	<ul> <li>Investing in Strategically Aligned Projects:</li> <li>4. Make investments that strengthen Alberta's capability to develop research excellence/expertise in key areas, including: bioinformatics, ICT, nanotechnology, genomics, proteomics, energy, agriculture and forestry</li> </ul>		
An innovative	Fostering Innovation:		
environment that encourages collaboration	<ul> <li>5. Encourage greater investment in Alberta research and development from industry and federal government sources</li> <li>6. Increase collaboration and coordination among research performers</li> </ul>		
	and funders		
	7. Work with Alberta Learning to co-ordinate research-related policies and programs		
	8. Promote science and technology awareness		
	KEY PERFORMANCE MEASURE		

1. The ability of Alberta universities to attract sponsored research funding by source.

(\$ millions)	1998-1999 Actual	1999-2000 Actual	2004-2005 Target
Federal Government	86	119	176
Industry	45	43	86
Non-Profit and Other	35	46	61
Sub-Total	166	208	323
Provincial Government	65	92	110
Total	231	300	433
INDICATORS			

1. Alberta university publications as a percentage of Canadian and global publications.

	1997	1998	1999	2000
Percentage of Canadian publications	10.0	10.2	10.6	11.1
Percentage of global publications	0.48	0.46	0.49	0.50

2. Alberta's Gross Expenditures on Research and Development (GERD) as a percentage of Provincial Gross Domestic Product (PGDP) in comparison to Ontario, Québec, and BC.

Year	Alberta	British Columbia	Ontario	Québec	Canada	
1999	0.9	1.0	2.0	2.4	1.8	

3. Importance of science and research to Albertans (based on survey results). Baseline (2001): 95% of Albertans think research conducted at universities and with industry is important or very important to their guality of life.

# GOAL 2 TO INCREASE ENERGY RESEARCH INTENSITY THAT CONTRIBUTES TO ALBERTA'S CONTINUED PROSPERITY\*

OUTCOMES	STRATEGIES
Cleaner power generation from coal and other feedstocks	<ul> <li>Investing in Infrastructure:</li> <li>1. Support industry field pilot projects and the development of facilities to demonstrate new clean energy technology</li> </ul>
An improved upgrading process so that synthetic crude is acceptable to more refineries	<ul> <li>Investing in Strategically Aligned Projects:</li> <li>2. Support the development of cleaner energy research programs that will make Alberta's coal reserves generally more acceptable for electricity generation</li> <li>3. Study the use of coal and "opportunity" feedstocks (bitumen bottoms, asphaltenes, woodwaste) to generate other products such as hydrogen, steam and petrochemical feedstocks</li> </ul>
Improved management of carbon dioxide emissions from energy production	<ul> <li>Fostering Innovation:</li> <li>4. Develop a network linking provincial, national and global research activities in clean energy</li> <li>5. Coordinate and align the clean energy research activities of the universities, and federal and provincial labs</li> </ul>
Improved recovery and less energy-intensive production of oil and gas	<ul> <li>Investing in Strategically Aligned Projects:</li> <li>6. Invest in energy research that is focused on new technologies for getting bitumen to energy markets</li> <li>7. Work with industry, academia and research providers to evaluate innovations in value-added upgrading and petrochemical feedstocks</li> <li>8. Develop an energy management program for carbon dioxide</li> <li>9. Support research and technology related to the storage of carbon dioxide, including separation, concentration, transportation and disposal of carbon dioxide</li> <li>10. Invest in research that leads to improved oil and natural gas recovery from existing reservoirs and access to non-conventional resources</li> </ul>
World-class capability in fuel cell and hydrogen research	Investing in Infrastructure: 11. Support the development of an energy research infrastructure for emerging fuel cell and hydrogen research
Increased collaboration and coordination among energy research performers and energy producers	<ul> <li>Fostering Innovation:</li> <li>12. Maintain close working relationships with and promote industry collaborative work through associations such as the Petroleum Technology Alliance of Canada, the Canadian Clean Power Coalition, and the Canadian Oil Sands Network for Research and Development</li> <li>13. Work with industry and other government ministries to promote technology advances in energy and help rationalize the energy programs with other providers within Canada and the U.S.</li> </ul>
Increased investment from industry and federal sources	<ul> <li>Investing in People:</li> <li>14. Develop a plan to attract world-class energy researchers to Alberta through a strong university based program, and thereby attract industry and federal government investment in new technology in Alberta</li> <li>anying strategies reflect the initial stages of implementation of a long-term</li> </ul>

\* This goal and the accompanying strategies reflect the initial stages of implementation of a long-term energy research strategy

### **KEY PERFORMANCE MEASURES**

1. Number of new technologies in Alberta at the demonstration stage for clean burning coal and other feedstocks:

Baseline (2001-2002): 0

Target (2010): 2

2. Number of new fuel cell or hydrogen research projects supported: Baseline (2001-2002): 3 projects Target (2010): 5 projects

3. Aromatic content of bitumen:

Upgrading technologies will reduce the aromatic content of bitumen, resulting in a synthetic crude which is acceptable to a higher number of refineries (as demonstrated through research). Baseline (2001): 30% aromatic content Target (2010): 20% aromatic content

## **INDICATORS**

- 1. Energy intensity and greenhouse gas emissions: Baseline Estimate (2001-2002): 80 kg of carbon dioxide per barrel of bitumen
- 2. Sponsored energy research and development at Alberta universities: Baseline: Information will be available in Fall 2002.
- 3. Alberta university-based publications as a percentage of global publications in energy research and development.

1997	1998	1999	2000	
0.36	0.38	0.40	0.43	

## GOAL 3 TO FOSTER EXCELLENCE IN INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT) RESEARCH THAT CONTRIBUTES TO ALBERTA'S CONTINUED PROSPERITY

OUTCOMES	STRATEGIES
Internationally recognized research capabilities in areas of strategic importance	<ul> <li>Investing in People:</li> <li>1. Recruit and fund through iCORE the best researchers in ICT segments where Alberta can be a global leader. These segments include: <ul> <li>Broadband networks including wireless</li> <li>High performance computing</li> <li>New computational models to support emerging technologies (genomics, nanotechnology, bioinformatics, etc.)</li> </ul> </li> <li>2. Encourage industry to fund research chairs at Alberta universities</li> <li>3. Collaborate with government partners to increase the number of Alberta graduates from ICT-related fields of study</li> </ul>
An innovative environment that encourages collaboration in ICT research	<ul><li>Investing in Infrastructure:</li><li>4. Invest strategically in infrastructure which makes Alberta globally competitive</li></ul>
in 101 research	Fostering Innovation:
	5. Increase collaboration between research institutions in Alberta and those in other jurisdictions in targeted strategic technologies
	<b>6.</b> Encourage industry to invest in research projects at Alberta universities
	KEY PERFORMANCE MEASURE
encourages collaboration in ICT research	<ul> <li>competitive</li> <li>Fostering Innovation:</li> <li>5. Increase collaboration between research institutions in Alberta and those in other jurisdictions in targeted strategic technologies</li> <li>6. Encourage industry to invest in research projects at Alberta universities</li> </ul>

1. Number of world-class ICT researchers attracted by iCORE Inc.

Baseline (2000-2001): 4 major awards

Annual Target: 4 additional major awards (new or renewed) through increased industry participation

- 1. Sponsored ICT research and development at Alberta Universities. Baseline: To be determined by Fall 2002.
- 2. Alberta's university-based publications as a percentage of global publications in ICT research and development.

1997	1998	1999	2000	
0.34	0.32	0.39	0.37	

3. Number of researchers and graduate students at TRLabs:

Graduate Students
34

 Number of graduate students studying Computer Science and Electrical and Computer Engineering at the University of Alberta and the University of Calgary. Baseline (2000-2001):513

# GOAL 4 TO FOSTER EXCELLENCE IN LIFE SCIENCES RESEARCH THAT CONTRIBUTES TO ALBERTA'S CONTINUED PROSPERITY\*

OUTCOMES	STRATEGIES
Internationally recognized research capabilities in areas of strategic importance	<ul> <li>LIFE SCIENCES</li> <li>Investing in People:</li> <li>1. Develop a human resource plan in partnership with relevant government ministries, the Alberta Heritage Foundation for Medical Research, research organizations and the life sciences industry to attract and retain highly-skilled researchers</li> </ul>
	<ul> <li>Investing in Infrastructure:</li> <li>2. Participate with government ministries to develop a long-term infrastructure plan to support life sciences research and development</li> <li>3. Participate with Alberta Health and Wellness and Alberta Infrastructure in planning for the capital projects for building the Health Research Innovation Centres in Edmonton and Calgary</li> <li>4. Participate with Alberta Health and Wellness and Alberta Infrastructure in planning for the capital projects for establishing the centers of excellence in cardiac care and bones and joints in Edmonton and Calgary</li> </ul>
	<ul> <li>Investing in Strategically Aligned Projects:</li> <li>5. Align and co-ordinate research and development activity and funding within each of the four areas: agriculture, forestry, environment, and health</li> <li>6. Develop and implement a communications plan to increase international awareness of Alberta's strengths in the life sciences</li> </ul>
An innovative environment that encourages collaboration	<ul><li>Fostering Innovation:</li><li>7. Continue to work with other government ministries, industry and the universities to refine the life sciences strategy and implementation plans</li></ul>

\* This goal and the accompanying strategies reflect the initial stages of implementation of a long-term life sciences strategy

OUTCOMES	STRATEGIES
Internationally recognized research capabilities in	AGRICULTURE AND FOOD
areas of strategic	Investing in People:
importance	8. Develop a plan and resulting programs to meet the human resource needs of the agricultural research and technology development system
	Investing in Strategically Aligned Projects:
	9. Increase investments in high-quality agricultural research and technology development through creation of strategic networks in the following priority areas: agri-health and value-added food; bio-products; environmental sustainability; and primary agriculture and food production
An innovative	Fostering Innovation:
environment that encourages collaboration	<ul> <li>10. Work with other organizations funding agricultural research to build increased agricultural research and technology capability aligned with clearly defined strategic directions</li> </ul>
	FORESTRY
Internationally recognized research capabilities in areas of strategic importance	<ul> <li>Fostering Innovation:</li> <li>11. Work with industry and other government departments to develop a strategic research plan for the Alberta Forestry Research Institute</li> <li>12. Support projects related to improved long-term forest management and development of new products</li> </ul>

1. Sponsored life sciences research and development in Alberta. Baseline: Information will be available in Fall 2002

2. Alberta's university-based publications as a percentage of global publications in life sciences research and development.

1997	1998	1999	2000	
0.64	0.64	0.68	0.69	

3. Number of graduates from life sciences-related programs at Alberta universities and selected colleges.

	1998	1999	2000
Degree/Certificate	Estimate*	Estimate*	Estimate*
PhD	30	25	35
Masters	53	66	79
Bachelor	449	477	493
Medical Doctor (MD)	71	73	75
Technical Diplomas	251	232	89
Total	854	873	771

\* Data from selected post-secondary institutions is pending.

4. Number of faculty researchers and students supported by the Alberta Heritage Foundation for Medical Research.

1998-1999	1999-2000	2000-2001	2001-2002
Actual	Actual	Actual	Estimate
176	201	226	245
176	200	207	210
	<b>Actual</b> 176	Actual         Actual           176         201	Actual         Actual         Actual           176         201         226

#### GOAL 5 TO FOSTER GREATER PROSPERITY IN ALBERTA FROM THE COMMERCIALIZATION OF RESEARCH IN INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT), LIFE SCIENCES AND OTHER AREAS OF STRATEGIC IMPORTANCE

OUTCOMES	STRATEGIES
OUTCOMES Increased commercialization of ICT and life sciences research in Alberta	ICT Investing in People: I. Facilitate appropriate management assistance/mentoring for startup and small ICT and life sciences businesses, in collaboration with Inno-centre Alberta and other partners Investing in Infrastructure: I. Identify and market business opportunities resulting from university related research activities I. Provide facilities, equipment, and expertise to help Alberta industry develop and commercialize new products, processes and services Investing in Strategically Aligned Projects:
	<ol> <li>Attract and leverage industrial research and development investment through TR<i>Labs</i>, post-secondary institutions and ASRA initiatives</li> <li>Attract industrial partners and investment to Alberta</li> <li>Review the potential for initiatives which encourage the creation of early stage seed/venture capital pools</li> </ol>
	<ul> <li>Fostering Innovation:</li> <li>7. Facilitate partnerships between Alberta industry, researchers and government to develop emerging technologies and bring them to market</li> <li>8. Facilitate the development of Innovation Networks linking Alberta researchers, industry and research funders to others across Canada and the world</li> </ul>
	LIFE SCIENCES
	<ul><li>Fostering Innovation:</li><li>9. Develop and implement a technology commercialization strategy for life sciences in Alberta</li></ul>
	KEY PERFORMANCE MEASURE
	rative ICT and life sciences research and development veen Alberta universities and research organizations and those in

Baseline (2000-2001): 2 umbrella agreements and 5 sub-agreements

Target (2005): 2 new umbrella agreements

- 6 new sub-agreements (under existing umbrella agreements or new umbrella
  - agreements) related to specific deliverables or projects

1. The value of industrial research investments attracted to Alberta research institutions.<br/>Baseline (1999-2000):University of Alberta \$22,100,000<br/>University of Calgary \$20,900,000<br/>University of Lethbridge \$110,000<br/>Athabasca University \$4,000

Alberta Research Council Inc. \$22,200,000

2. Number of patents issued from Alberta-based technologies.

	University Technologies	Industry Liaison Office	Alberta Research
	International (U of C)	(U of A)	Council
2000-2001 Baseline	22	17	27*

\* Of the 27 patents reported for ARC, 2 are joint patents issued to the Alberta Research Council and Industry Liaison Office

3. Number of spin off companies resulting from Alberta research.

	University Technologies	Industry Liaison Office	Alberta Research
	International (U of C)	(U of A)	Council
2000-2001 Baseline	3	8	0

4. Licensing Revenue (\$ millions)

	University Technologies	Industry Liaison Office	Alberta Research
	International (U of C)	(U of A)	Council
2000-2001 Baseline	3.6	7.6	1.1

# GOAL 6 TO ATTRACT, GROW, ESTABLISH AND RETAIN INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT) AND LIFE SCIENCES BUSINESSES IN ALBERTA

OUTCOMES	STRATEGIES
Growth of ICT sector in Alberta	ICT
Alberta	<ol> <li>Investing in People:</li> <li>Work with partners to encourage expatriates and skilled workers to re-locate to Alberta</li> <li>Work with Alberta Learning, Alberta universities and other partners to develop a plan to enhance entrepreneurial skills</li> </ol>
	<ul> <li>Investing in Strategically Aligned Projects:</li> <li>3. Through collaboration with Inno-centre and other partners, facilitate increased access to seed, angel and venture capital, as well as appropriate management assistance for start-up and small ICT businesses</li> <li>4. Work with Alberta Economic Development and other partners to promote the Alberta Advantage to the ICT industry</li> </ul>
	<ul> <li>Fostering Innovation:</li> <li>5. Provide competitive intelligence and information that helps industry make technology development decisions</li> <li>6. Conduct environmental scans of Alberta's competitiveness in order to assist in defining appropriate policy recommendations and marketing actions to stimulate ICT industry growth</li> </ul>

OUTCOMES		STRATEGIES				
Growth of life sciences sector in Alberta	<ul> <li>LIFE SCIENCES</li> <li>Investing in Strategically Aligned Projects:</li> <li>7. Work with Alberta Economic Development and other partners to promote the Alberta Advantage to the life sciences industry</li> </ul>					
	KEY PERFOR	MANCE MEASURE				
1. Employment in the ICT see	ctor in Alberta					
1999 Actual	2000 Actual	2001 Actual	2005 Target			

 Actual	Actual	Actual	Target	
50,300	53,700	56,000	85,300	

1. Venture capital invested in Alberta early stage high-tech companies. Baseline (1999): \$129 million (2000): \$211 million

2. Employment in the life sciences sector in Alberta. Baseline Estimate (2000): 110,430

# CORE BUSINESS 2: CORPORATE INFORMATION AND COMMUNICATIONS TECHNOLOGY

# MISSION: To provide strategic leadership and direction in the innovative and cost-effective use of information and communications technology to improve the efficiency of government program delivery and administration

Information and communications technology (ICT) is an essential tool for delivering government programs and services to Albertans and in the daily administration of government operations. The Alberta government makes significant investments in ICT systems to maintain and improve the delivery of its services and the cost-effectiveness of its day-to-day operations.

Albertans are increasingly expecting that programs and services will be available on-line, any time, anywhere in Alberta. Meeting these expectations cost effectively requires a high degree of collaboration between government ministries as well as the seamless sharing of information between ministries, while ensuring that Albertans' concerns for privacy and security are respected.

The Ministry of Innovation and Science is responding to these needs in two ways.

First, through Alberta SuperNet, affordable, high-speed broadband access to all universities, school boards, libraries, hospitals, and provincial government buildings in Alberta will be provided within the next three years. This network will be the foundation for electronic delivery of government programs and services to Albertans in 422 communities throughout the province. SuperNet will also facilitate the provision of high-speed Internet access to businesses and Albertans in these 422 communities through independent Internet service providers accessing services from the SuperNet infrastructure.

Innovation and Science also continues to provide corporate leadership and to work closely with all government ministries to ensure that investments in technology are aligned to cost effectively enhance the delivery of services to Albertans.

Ministry efforts under this core business will, in turn, impact the achievement of the broader Government of Alberta (GOA) business plan goals, particularly goals related to:

- the development of effective and efficient infrastructure (GOA goal 11)
- improved access to government services and efficient management of government resources and communications (GOA goal 12)

OUTCOMES	STRATEGIES
High-speed Internet services available to 422 communities	<b>Investing in Infrastructure:</b> 1. Complete the construction of Alberta SuperNet by 2004.
	Fostering Innovation:
Enhanced and more efficient delivery of services through Alberta SuperNet	<ul> <li>2. Identify opportunities for enhanced program/service delivery utilizing Alberta SuperNet, through collaboration with other ministries, and particularly:</li> <li>E-learning with Alberta Learning</li> <li>E-health services with Alberta Health and Wellness</li> <li>One-Window service delivery with Alberta Government Services</li> <li>Providing connections for libraries with Alberta Community Development</li> </ul>
New business opportunities in Alberta	<ul> <li>Investing in Strategically Aligned Projects:</li> <li>3. Ensure commercial vendors will be able to access Alberta SuperNet at competitive prices</li> <li>4. Develop and implement an investment attraction plan directed at both leading edge ICT companies and new business ventures made possible as a result of Alberta SuperNet</li> <li>5. Work closely with Alberta Economic Development to maximize opportunities arising for existing and new Alberta businesses</li> </ul>
	KEY PERFORMANCE MEASURES

### GOAL 7 TO STRENGTHEN THE ALBERTA ADVANTAGE BY MAXIMIZING THE OPPORTUNITIES PRESENTED BY A PROVINCE-WIDE HIGH-SPEED INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT) CAPABILITY THROUGH ALBERTA SUPERNET

1. Availability of Alberta SuperNet to 422 communities and approximately 4700 stakeholders during the three-year construction period.

	2001-2002 Baseline	2002-2003 Target	2003-2004 Target	2004-2005 Target
Communities Connected (cumulative)	0	133	356	422
	2001-2002	2002-2003	2003-2004	2004-2005
Stakeholders* Connected (cumulative)	Baseline	Target	Target	Target
Schools (total of 2,527 sites)	0	478	1,270	2,527
Hospitals (total of 542 sites)	0	114	287	542
Libraries (total of 303 sites)	0	84	235	303
GOA buildings (total of 1,284 sites)	0	292	730	1,284

\* Number of stakeholders is preliminary and may be adjusted through detailed analysis during construction. A stakeholder is indicated as 'connected' within the fiscal year when all sites in that community are fully operational.

#### KEY PERFORMANCE MEASURES

- 2. Percentage of Albertans with availability to high-speed Internet. Baseline to be developed by Fall 2002.
- 3. The number of government programs/services provided to Albertans that are SuperNet ready.

2001-2002	2002-2003	2003-2004	2004-2005
Baseline	Target	Target	Target
8	23	38	53

### GOAL 8 TO BE RECOGNIZED INTERNATIONALLY AS A LEADER IN THE INNOVATIVE AND COST-EFFECTIVE USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT) IN THE DELIVERY OF GOVERNMENT PROGRAMS AND COST EFFECTIVE GOVERNMENT ADMINISTRATION

OUTCOMES	STRATEGIES
Effective and efficient delivery of government programs and services	<ul> <li>Providing Strategic Leadership:</li> <li>1. Provide strategic direction and a government-wide framework to guide ministries in the innovative and cost-effective use of ICT to deliver government programs and services</li> <li>2. Provide strategic advice and support to ministries to ensure that their internal ICT priorities align with government's goals, objectives, standards and priorities</li> <li>3. Provide strategic leadership in setting cross-government business, technical and operational standards that ensure all major systems can readily exchange and share information in a secure manner that protects individual privacy and promotes direct service delivery to Albertans where practical</li> <li>4. Ensure new and redeveloped information and communication</li> </ul>
Cost-effective and efficient internal government operations	<ol> <li>Ensure new and redeveloped information and communication systems within the government provide innovative, cost effective program and service delivery and make maximum use of SuperNet capabilities</li> <li>Develop common cross government applications and services which involve service/benefit by multiple government ministries and support direct service delivery to Albertans electronically</li> </ol>
Direct electronic delivery of government services to Albertans	<ul> <li>Investing in Strategically Aligned Projects:</li> <li>6. Provide strategic advice and analysis to Treasury Board regarding ICT investment directions and priorities</li> <li>7. Purchase ICT products and services in a manner which provides maximum practical benefit to the government based on economy of scale purchasing practices</li> <li>8. Ensure that government ICT products and services are purchased in a manner that both fosters and sustains competition in the ICT sector</li> </ul>
	<ul> <li>Investing in People:</li> <li>9. Ensure the skills and competencies required by industry as well as within the GOA to effectively and efficiently implement and manage government systems for the present and into the future</li> <li>10. Identify the mechanisms and work with departments to develop programs required to develop, retain and acquire the skills and competencies needed by government staff to effectively guide and manage government ICT</li> </ul>

#### KEY PERFORMANCE MEASURE

1. Adoption of corporate standards by individual departments.

Baseline Estimate (2001-2002): 36% of the 24,727 desktops throughout all ministries have already been converted to the Windows 2000/Office 2000 standard.

Target (2002-2003): 92% of desktops converted to Windows 2000 and Office 2000 A specific target will be set for each standard as it is established.

#### INDICATORS

1. Savings realized through corporate ICT purchases that would be available for re-investment. Baseline Estimated Savings (2001-2002): \$1,413,462

2. Number of cross government ICT applications developed and implemented.

Application	Year Commissioned	% Implementation
Alberta Government Integrated Management		
Information System (IMAGIS)		
Financial Management System Modules:		
General Ledger	1997	78% of business units
Accounts Payable	1997	53% of business units
Purchasing	1999	23% of business units
Procurement Card	2000	4% of business units
Accounts Receivable	1999	36% of business units
Billing Module	1999	15% of business units
Budget Module	1998	6% of business units
Human Resource Management System	1998	90% ministries/agencies
Alberta Government Employee Net (AGent)	2000	80% of employees
Electronic Payment System	2000	100% of ministries for
		3 vendors
On-line Expense Claim (ExClaim)	2001	60% of ministries
Action Request Tracking System (ARTS)	1999	73% of ministries
Contract Management System	2001	0%

# CORPORATE AND CROSS MINISTRY ACTIVITIES

Corporate divisions within the Ministry of Innovation and Science ensure resources are used effectively and efficiently to support ministry goals and strategies. Corporate divisions also support a number of key cross ministry initiatives.

**Business Resumption Planning** - Innovation and Science is working with the Disaster Services Branch at Alberta Municipal Affairs on a corporate initiative to develop a comprehensive business resumption plan for the Ministry. Specific actions to ensure early completion of a formal business resumption plan that are underway include:

- Establishment of a Business Resumption Committee
- Completion of a threat/risk/needs assessment for all divisions within Innovation and Science

## **GOVERNMENT OF ALBERTA PRIORITY POLICY INITIATIVES 2002 - 2003**

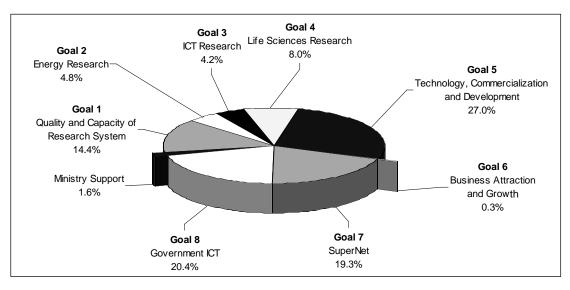
The Ministry participates in the following Priority Policy Initiatives: Health Sustainability Initiative, Aboriginal Policy Initiative, Economic Development Strategy (Co-champion), and Alberta Children and Youth Initiative.

## **GOVERNMENT OF ALBERTA KEY ADMINISTRATIVE INITIATIVES 2002 - 2003**

The Ministry is also involved in the following key administrative initiatives: Alberta Corporate Service Centre (ACSC) Initiative, Corporate Human Resource Development Strategy, Corporate Information Management/Information Technology Strategy (lead Ministry), and the Alberta One-Window Initiative.

# **GOVERNMENT OF ALBERTA ROUTINE/MAINTENANCE INITIATIVES 2002 - 2003**

Innovation and Science is the lead Ministry on the Life Sciences Strategy and participates in other routine/maintenance initiatives including: the Alberta Public Library Electronic Network, Sustainable Development Strategy, Capital Planning Initiative, Canadian Intergovernmental Relations Strategy, and the International Strategy.



# **Expense by Goal**

# **Expense by Core Business**

(thousands of dollars)

	Comparable 2000-01 Actual	Comparable 2001-02 Budget	Comparable 2001-02 Forecast	2002-03 Estimates	2003-04 Target	2004-05 Target
EXPENSE						
Core Business						
Research and Development	146,176	144,684	140,529	148,633	155,967	166,266
Corporate Information and Communications Technology	63,019	97,476	50,226	55,773	50,541	51,041
Ministry Support Services	4,205	4,335	4,285	4,335	4,465	4,465
MINISTRY EXPENSE	213,400	246,495	195,040	208,741	210,973	221,772
CAPITAL INVESTMENT						
Core Business						
Research and Development	2,898	3,881	3,881	4,296	5,022	5,015
Corporate Information and Communications Technology	7,496	8,012	45,012	123,699	42,801	4,101
MINISTRY CAPITAL INVESTMENT	10,394	11,893	48,893	127,995	47,823	9,116

# **Ministry Statement of Operations**

(thousands of dollars)	Comparable	Comparable	Comparable			
	2000-01	2001-02	2001-02	2002-03	2003-04	2004-05
	Actual	Budget	Forecast	Estimates	Target	Target
REVENUE						
Internal Government Transfers	41,832	90,838	80,838	182,644	99,044	60,844
Transfers from Government of Canada	2,306	1,125	1,125	2,000	3,000	4,000
Investment Income	808	390	390	840	840	840
Other Revenue	62,858	52,459	50,159	57,515	61,401	70,693
MINISTRY REVENUE	107,804	144,812	132,512	242,999	164,285	136,377
EXPENSE						
Program						
Alberta Science and Research Authority (ASRA):						
Alberta Agricultural Research Institute	8,670	8,900	8,900	8,875	8,875	8,875
Alberta Energy Research Institute	8,104	8,900	8,900	6,940	6,940	6,940
Alberta Forestry Research Institute	2,227	1,450	1,450	2,260	2,260	2,260
Alberta Research Council Inc.:						
- Contract Research	34,824	43,348	39,648	47,406	54,296	64,595
- Research funded by ASRA	25,075	24,675	24,675	26,575	26,855	26,855
iCORE Inc. (Informatics Circle of Research Excellence)	10,004	10,000	9,670	10,000	10,000	10,000
Science and Research Investments Program	46,288	38,647	38,647	36,722	36,722	36,722
Technology Commercialization Initiatives	4,440	3,100	3,100	3,675	3,675	3,675
Operations and Policy Implementation	6,532	5,664	5,539	6,180	6,344	6,344
Information and Communications Technology	62,725	47,476	47,226	51,773	50,541	51,041
Alberta SuperNet	-	50,000	3,000	4,000	-	-
Ministry Support Services	4,205	4,335	4,285	4,335	4,465	4,465
Valuation Adjustments and Other Provisions	306	-	-	-	-	-
MINISTRY EXPENSE	213,400	246,495	195,040	208,741	210,973	221,772
Gain (Loss) on Disposal of Capital Assets	(10)	-	-	-	-	-
NET OPERATING RESULT	(105,606)	(101,683)	(62,528)	34,258	(46,688)	(85,395)

#### **CAPITAL INVESTMENT**

	Comparable 2000-01 Actual	2001-02	Comparable 2001-02 Forecast	2002-03 Estimates	2003-04 Target	2004-05 Target
Program						
Alberta Research Council Inc.	2,898	3,881	3,881	4,296	5,022	5,015
Alberta SuperNet	-	-	37,000	117,800	38,200	-
Information and Communications Technology	5,780	6,095	6,095	4,900	4,601	4,101
IMAGIS	1,716	1,917	1,917	999	-	-
MINISTRY CAPITAL INVESTMENT	10,394	11,893	48,893	127,995	47,823	9,116

# **Consolidated Net Operating Result**

(thousands of dollars)

	Comparable 2000-01 Actual	Comparable 2001-02 Budget	Comparable 2001-02 Forecast	2002-03 Estimates	2003-04 Target	2004-05 Target
Ministry Revenue	107,804	144,812	132,512	242,999	164,285	136,377
Inter-ministry consolidation adjustments	(72,015)	(105,331)	(95,331)	(199,836)	(113,931)	(75,731)
Consolidated Revenue	35,789	39,481	37,181	43,163	50,354	60,646
Ministry Program Expense	213,400	246,495	195,040	208,741	210,973	221,772
Inter-ministry consolidation adjustments	(30,678)	(14,493)	(14,493)	(17,192)	(14,887)	(14,887)
Consolidated Program Expense	182,722	232,002	180,547	191,549	196,086	206,885
Gain (Loss) on Disposal of Capital Assets	(10)	-	-	-	-	-
CONSOLIDATED NET OPERATING RESULT	(146,943)	(192,521)	(143,366)	(148,386)	(145,732)	(146,239)